

6,842,784.

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DOCKET NO.: E0295.70120US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: David Black
Serial No.: 09/605,040
Filed: June 27, 2000
For: USE OF GLOBAL LOGICAL VOLUME IDENTIFIERS TO ACCESS
LOGICAL VOLUMES STORED AMONG A PLURALITY OF
STORAGE ELEMENTS IN A COMPUTER STORAGE SYSTEM

Examiner: Mehmet B. Geckil
Art Unit: 2142

Confirmation No.: 6450

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document and the listed enclosures are being placed in the United States mail with first-class postage attached, addressed to Correspondence and Mail Division, Certificate of Correction Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February 15, 2005.


Eileen MacKenzie

Correspondence and Mail Division
Certificate of Correction Branch
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate
FEB 23 2005
of Correction

Sir/Madam:

Transmitted herewith for filing is/are the following document(s):

- ☒ Request for Certificate of Correction
- ☒ Copy of: Page 5 of April 30, 2004 Amendment; and Col 34 of U.S. 6,842,784
- ☒ PTO Form SB/44
- ☒ Return Post Card

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (617)720-3500, Boston, Massachusetts.

FEB 23 2005

Serial No.: 09/605,040
Conf. No.: 6450

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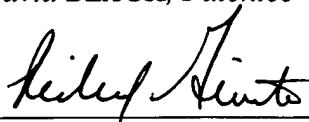
Art Unit: 2142

No check is enclosed. If it is determined that a fee is necessary, the fee may be charged to the account of the undersigned, Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

David BLACK, Patentee

By:



Richard F. Giunta, Reg. No.: 36,149
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210
Tel. (617) 720-3500

Attorney Docket No.: E0295.70120US00
Dated: February 15, 2005
XNDDX



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FEB 25 2005

Serial No.: 09/605,040
Conf. No.: 6450

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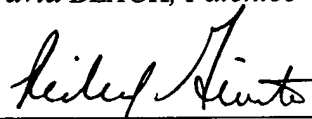
Art Unit: 2142

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Respectfully submitted,

David BLACK, Patentee

By:



Richard F. Giunta, Reg. No.: 36,149
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600 Atlantic Avenue
Boston, Massachusetts 02210
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Examiner: Mehmet B. Geckil
Art Unit: 2142

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Eileen MacKenzie
Eileen MacKenzie

Correspondence and Mail Division
Certificate of Correction Branch
P.O. Box 1450
Alexandria, VA 22313-1450

**REQUEST FOR CERTIFICATE
OF CORRECTION UNDER 37 C.F.R. §1.323**

Sir/Madam:

The Patentee respectfully requests the correction of an error in U.S. Patent No. 6,842,784 which issued from the above-identified application. Specifically, claim 13 as printed in issued U.S. Patent No. 6,842,784 contains errors that were not present in claim 32, as allowed (renumbered as claim 13 in issued patent no. 6,842,784). Claim 32, as allowed, was in the form submitted in the amendment filed on April 30, 2004, as amended by Examiner's Amendment (indicated in the Notice of Allowability of September 23, 2004). A copy of claim 32 as submitted in Patentee's April 30, 2004 amendment and a copy of the Notice of Allowability

FEB 25 2005

showing the Examiner's Amendment to claim 32 are submitted herewith, along with a copy of claim 13 as printed in U.S. Patent No. 6,842,784.

Claim 13 of U.S. Patent No. 6,842,784 reads:

13. The storage management console of claim 12, comprising an ELVID assignment module to assign the ELVID to the at least one of the plurality of logical volumes.

However, claim 32 as allowed reads:

32. The storage management console of claim 31, further comprising an ELVID assignment module to assign the ELVID to the at least one of the plurality of logical volumes.

The word "further" before the word "comprising" in claim 32 in the allowed claims is missing from claim 13 in the printed patent at column 34, line 1. Patentee points out that, other than the Examiner's Amendment, which merely changed the dependency of claim 32, there were no amendments to the claims following the Amendment filed on April 30, 2004. Therefore the claims of U.S. 6,842,784 should read the same as the claims filed on April 30, 2004, with the exception of the alteration of the dependency of claim 32 by Examiner's Amendment.

Accordingly, Patentee requests that a Certificate of Correction be granted in U.S. Letters Patent No. 6,842,784 as specified on the attached Certificate.

The correction requested does not involve change in the patent that constitutes new matter or would require reexamination. Therefore, it is respectfully requested that the correction be made and that a Certificate of Correction be issued.

Patentee respectfully submits that, since the error for which a Certificate of Correction is sought was the result of Patent Office mistake, no fee is due. However, if a fee is deemed necessary, the fee may be charged to the account of the undersigned, Deposit Account No. 23/2825.

FEB 25 2005

Serial No.: 09/605,040
Conf. No.: 6450

- 3 -

Art Unit: 2142

Should any questions arise concerning the foregoing, please contact the undersigned at the telephone number listed below.

Respectfully submitted,

David BLACK, Patentee

By: 
Richard F. Giunta, Reg. No.: 36,149
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210
Tel. (617) 720-3500

Attorney Docket No.: E0295.70120US00
Dated: February 15, 2005
XNDDX



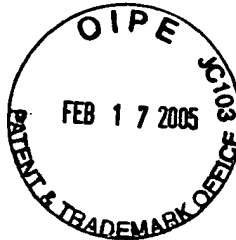
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,040	06/27/2000	David Black	E0295/7120	6450

7590 09/23/2004

Matthew B Lowrie
Wolf Greenfield & Sacks P C
Federal Reserve Plaza
600 Atlantic Avenue
Boston, MA 01720



EXAMINER

GECKIL, MEHMET B

ART UNIT PAPER NUMBER

2142

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

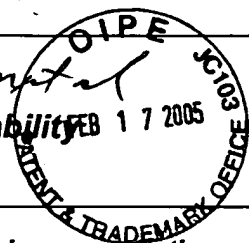
Confirmation	<input type="checkbox"/>	Initials
Docketing	<input checked="" type="checkbox"/>	<i>ce</i>

10/21/04 ✓
11/23/04 - u/a - wife paid 03/13/04 per CRT

RFg

DOCKETED
SEP 28 2004

Supplemental
Notice of Allowability



Application No.

09/605,040

Examiner

Mehmet B. Geckil

Applicant(s)

BLACK, DAVID

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/3/04 and Examiner's amendment.
2. ☒ The allowed claim(s) is/are 20-35.
3. ☒ The drawings filed on 27 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 09212004.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

**MEHMET B. GECKIL
PRIMARY EXAMINER**

Mehmet B. Geckil

Art Unit: 2142

EXAMINER'S AMENDMENT

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Richard Giunta on 09/21/04.

In claim 32, please change the claim dependency to claim 31.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehmet Geckil whose telephone number is (703) 305-9676. The examiner can normally be reached on Monday through Friday from 6:30 A.M. to 3:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Jack Harvey, can be reached on (703) 305-9705. The fax phone numbers for the organization where this application or proceeding is assigned are listed hereinbelow.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800/4700. Customer service number is (703) 306-5631.

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application/Control Number: 09/605,040

Page 3

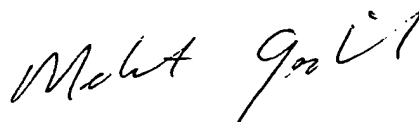
Art Unit: 2142

or faxed to:

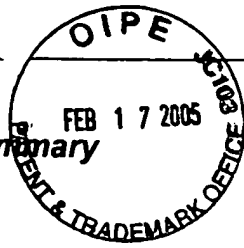
(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

9/21/04

A handwritten signature in black ink, appearing to read "Mehmet Geckil". The signature is written in a cursive, flowing style.

**MEHMET B. GECKIL
PRIMARY EXAMINER**



Interview Summary

Application No.

09/605,040

Applicant(s)

BLACK, DAVID

Examiner

Mehmet B. Geckil

Art Unit

2142

All participants (applicant, applicant's representative, PTO personnel):

(1) Mehmet B. Geckil.

(3) _____.

(2) Richard Giunta.

(4) _____.

Date of Interview: 21 September 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.
If Yes, brief description: _____.

Claim(s) discussed: 31 and 32.

Identification of prior art discussed: N/A.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner called the attorney to state that claim 32 was depending on claim 32. It should depend on claim 31. Attorney authorized Examiner to fix the claim dependency.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

MEHMET B. GECKIL
PRIMARY EXAMINER

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Mehmet B. Geckil
Examiner's signature, if required

least one of the plurality of logical volumes is stored on each of the plurality of storage elements,
the host computer comprising:

a processing unit; and

an enterprise logical volume identifier (ELVID) ~~ELVID~~ module to translate an ELVID for a first logical volume of the plurality of logical volumes to a physical storage location for the first logical volume, wherein the ELVID uniquely identifies the first logical volume among the plurality of logical volumes.

31. (Currently Amended) A storage management controller to manage access to data at least one of a plurality of logical volumes stored on a plurality of storage elements, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one of the plurality of logical volumes is stored on each of the plurality of storage elements, the controller comprising:

an access management module to provide access to the at least one of the plurality of logical volumes stored on the storage elements by providing a physical storage address associated with an enterprise logical volume identifier (ELVID) ~~ELVID~~ for the respective at least one of the plurality of logical volumes, wherein the ELVID for the at least one of the of the plurality of logical volumes uniquely identifies the at least one of the plurality of logical volumes among the plurality of logical volumes.

32. (Currently Amended) The storage management console of claim 32, further comprising an ELVID assignment module to assign the ELVID[[s]] to the at least one of the plurality of logical volumes.

33. (Currently Amended) A computer system, comprising:

a plurality of host computers;

a plurality of storage elements to store a plurality of logical volumes thereon, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one the plurality of logical volumes is stored on each of the plurality of storage elements; and

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4. The method of claim 1, wherein the step of using comprises a step of mapping the ELVID to a physical location address.

5. The method of claim 4, wherein the step of mapping comprises a step of using a database to translate the host, configuration address to the ELVID.

6. The method of claim 1, wherein the step of using comprises a step of specifying the ELVID in a request to access the first logical volume.

7. The method of claim 1, wherein the method is for a host computer to access the first logical volume and wherein the step of using comprises a step of employing the host computer to map the ELVID to a storage location address.

8. A host computer for use in a computer system that includes a plurality of storage elements storing a plurality of logical volumes, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one of the plurality of logical volumes is stored on each of the plurality of storage elements, the host computer comprising:

a processing unit; and

an enterprise logical volume identifier (ELVID) interface module to translate requests for access to a first logical volume of the plurality of logical volumes to an ELVID for the first logical volume that uniquely identifies the first logical volume among the plurality of logical volumes.

9. The host computer of claim 8, further comprising a module to translate the ELVID to a physical storage location for the first logical volume.

10. The host computer of claim 8, further comprising means for maintaining an ELVID database.

11. A host computer for use in a computer system that includes a plurality of storage elements storing a plurality of logical volumes, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one of the plurality of logical volumes is stored on each of the plurality of storage elements, the host computer comprising:

a processing unit; and

an enterprise logical volume identifier (ELVID) module to translate an ELVID for a first logical volume of the plurality of logical volumes to a physical storage location for the first logical volume, wherein the ELVID

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uniquely identifies the first logical volume among the plurality of logical volumes.

12. A storage management controller to manage access to at least one of a plurality of logical volumes stored on a plurality of storage elements, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one of the plurality of logical volumes is stored on each of the plurality of storage elements, the controller comprising:

an access management module to provide access to the at least one of the plurality of logical volumes by providing a physical storage address associated with an enterprise logical volume identifier (ELVID) for the at least one of the plurality of logical volumes, wherein the ELVID for the at least one of the plurality of logical volumes uniquely identifies the at least one of the plurality of logical volumes among the plurality of logical volumes.

13. The storage management console of claim 12, comprising an ELVID assignment module to assign the ELVID to the at least one of the plurality of logical volumes.

14. A computer system, comprising:

a plurality of host computers;

a plurality of storage elements to store a plurality of logical volumes thereon, wherein each of the plurality of storage elements is a unitary storage system comprising at least one storage device, wherein at least one the plurality of logical volumes is stored on each of the plurality of storage elements; and

means for assigning an enterprise logical volume identifier (ELVID) to at least one of the plurality of logical volumes to be accessed by the host computers, wherein the ELVID for the at least one of the plurality of logical volumes uniquely identifies the at least one of the plurality of logical volumes among the plurality of logical volumes.

15. The computer system of claim 14, further comprising: means for using the ELVID to access the at least one of the plurality of logical volumes.

16. The computer system of claim 14, further comprising: means for maintaining a database of ELVIDs for corresponding logical volumes.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,842,784 *BI*
DATED : January 11, 2005
INVENTOR(S) : David Black

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In col. 34, claim 13, line 1 should read:

-- The storage management console of claim 12, further comprising --

MAILING ADDRESS OF SENDER

PATENT NO. 6,842,784

Richard F. Giunta
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210

FEB 25 2005